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FIG. 1

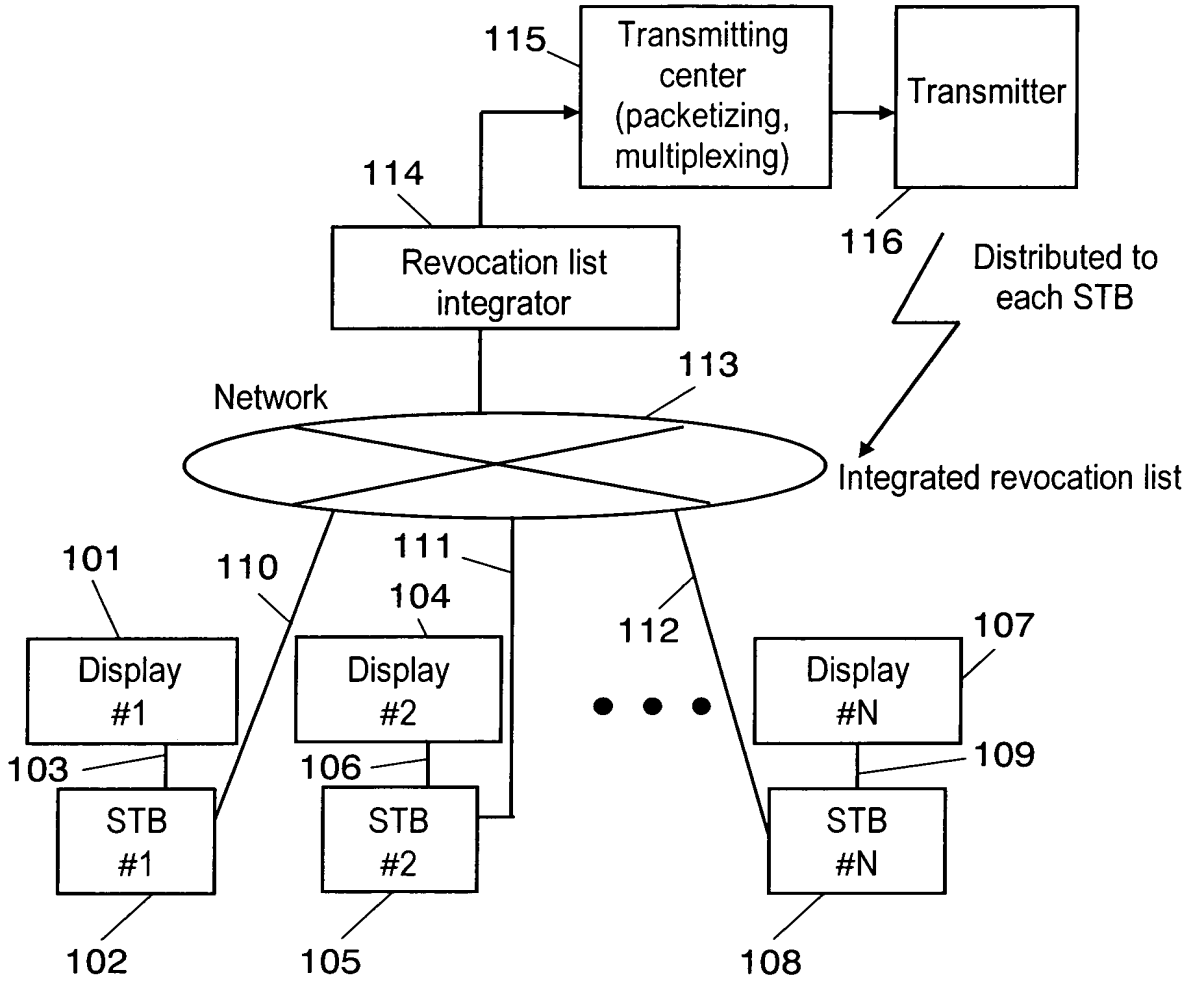

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FIG. 2

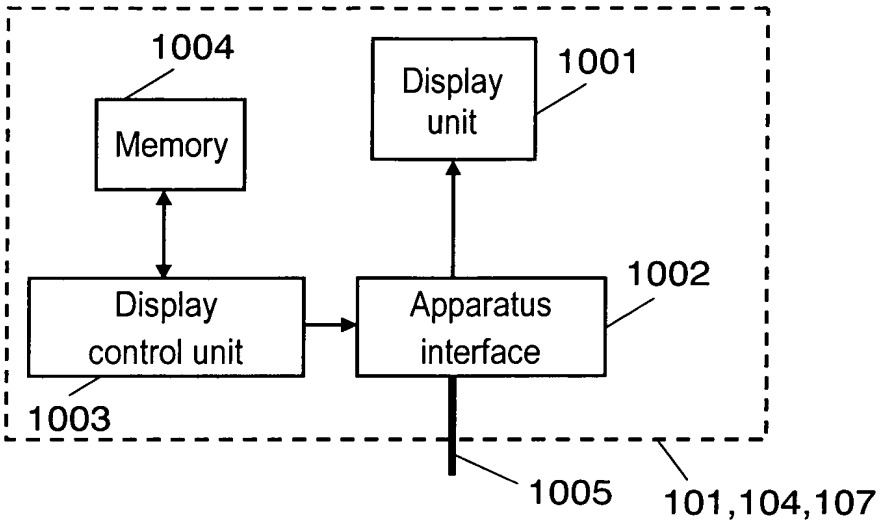

FIG. 3

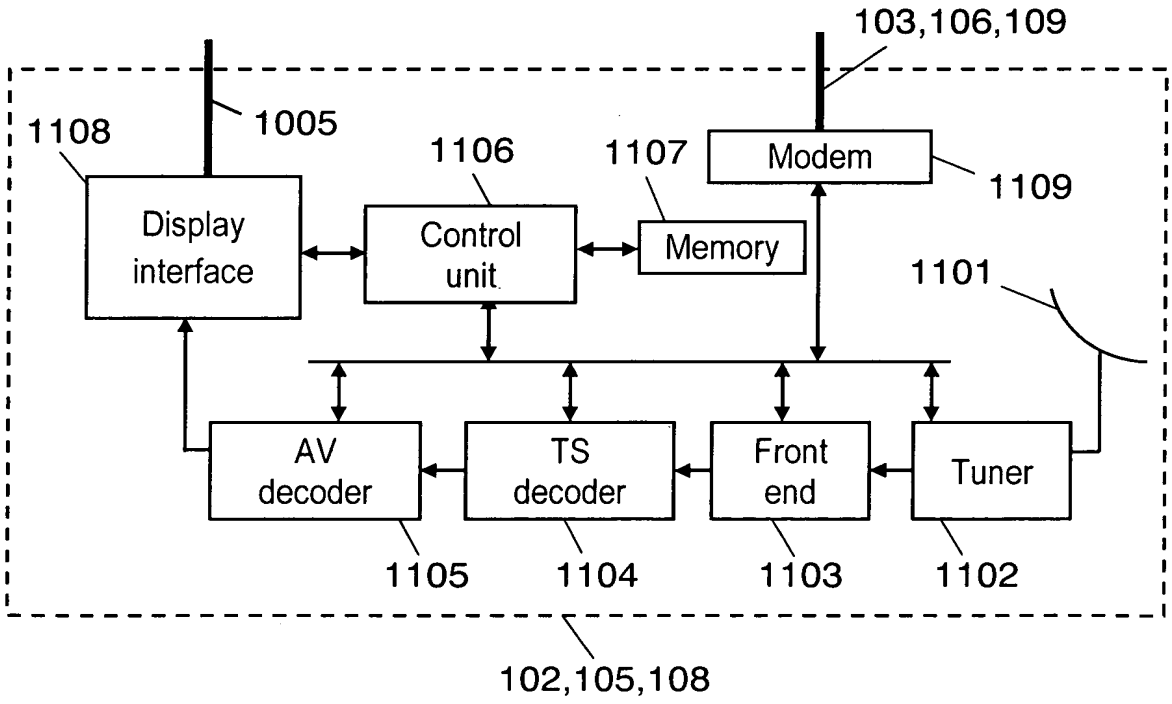

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FIG. 4

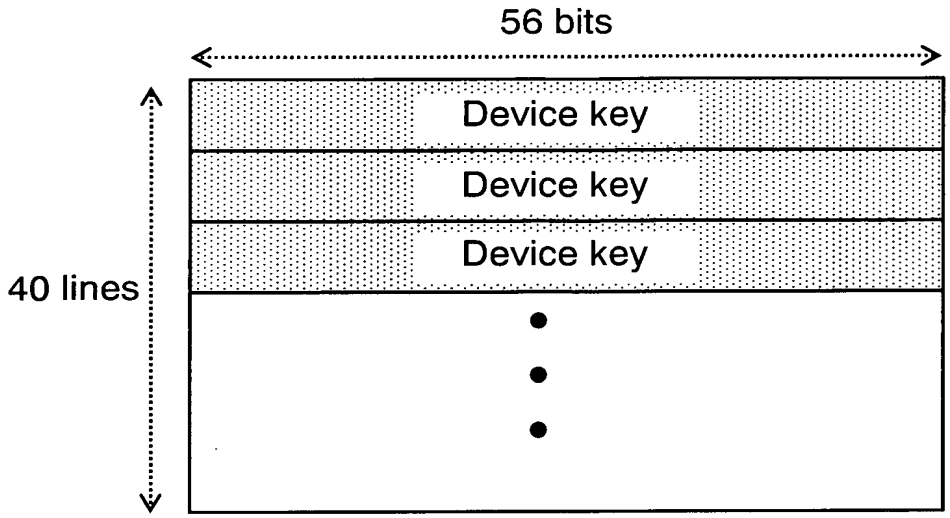

FIG. 5

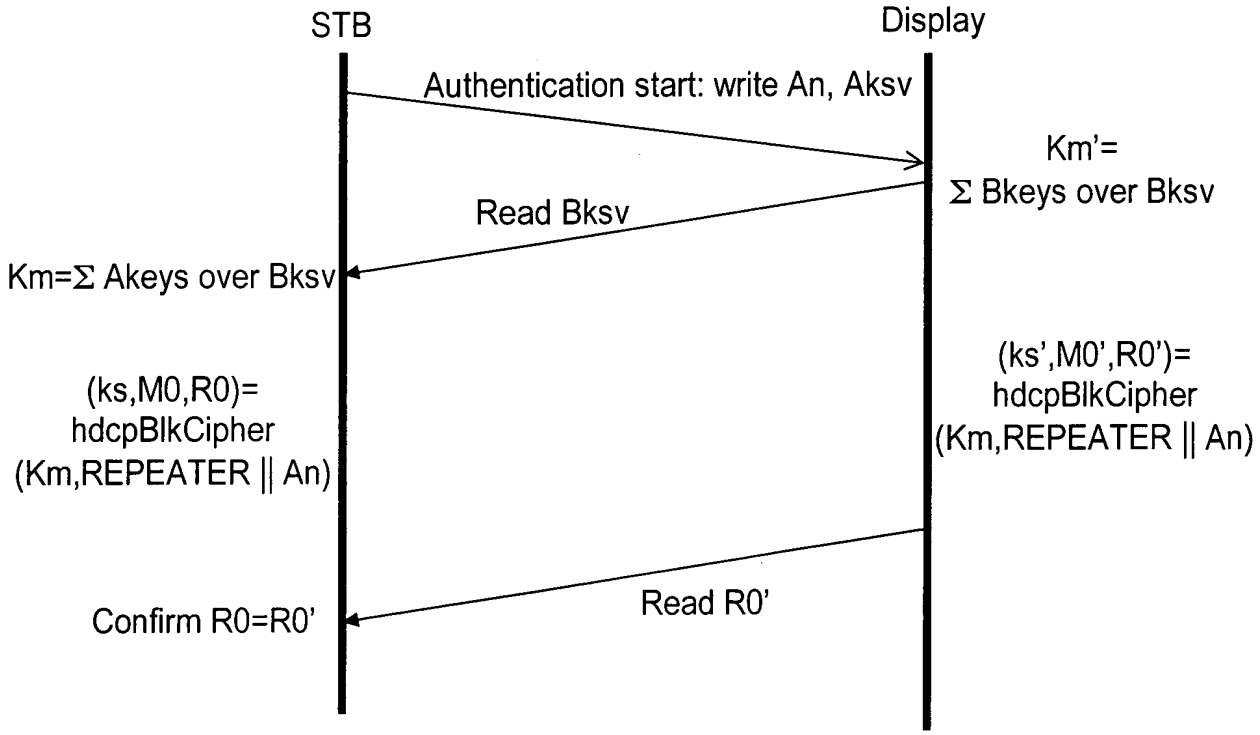

FIG. 6

Maker ID	Apparatus ID	Bksv
Maker_1	Kiki_1	Bksv_1
Maker_2	Kiki_2	Bksv_2
Not registered	Not registered	Not registered
Not registered	Not registered	Not registered

FIG. 7

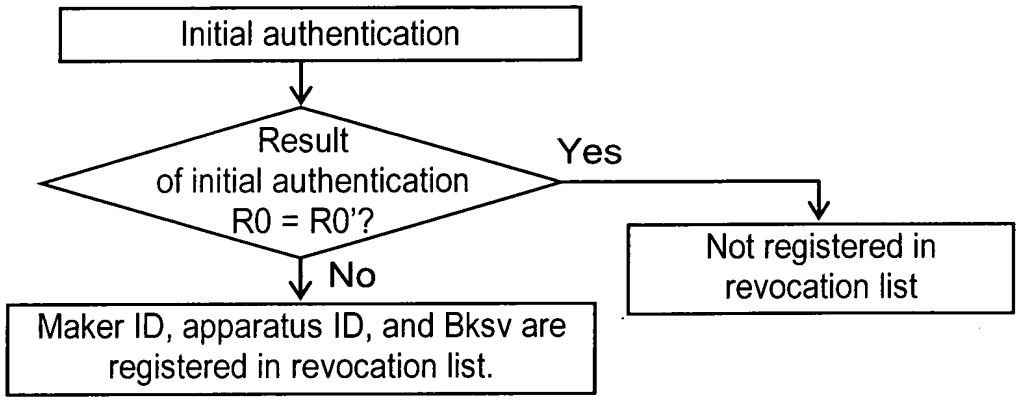

FIG. 8

Maker ID	Apparatus ID	Bksv
Maker_1	Kiki_1	Bksv_1
Maker_2	Kiki_2	Bksv_2
Maker_3	Kiki_3	Bksv_3
Not registered	Not registered	Not registered

FIG. 9

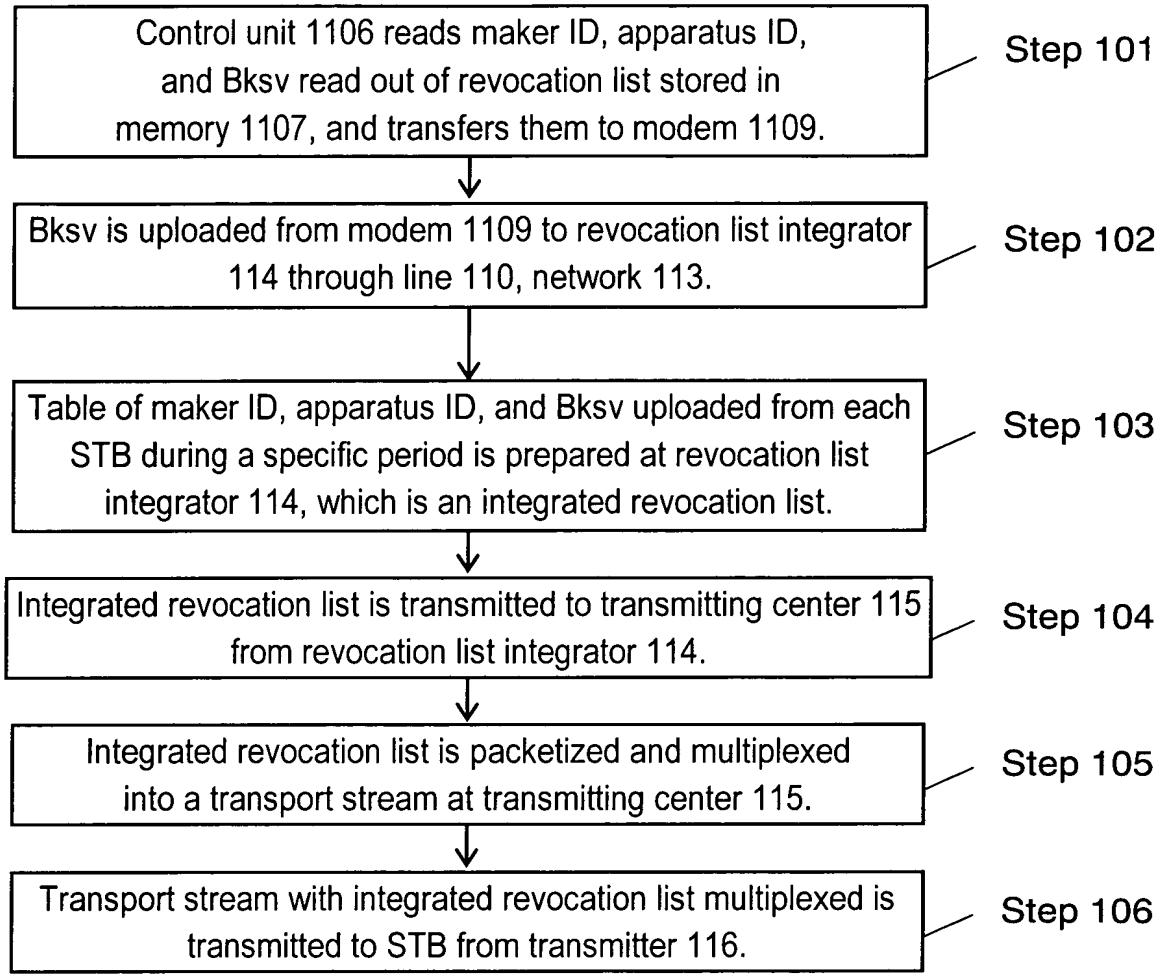
Control unit 1106 reads maker ID, apparatus ID, and Bksv read out of revocation list stored in memory 1107, and transfers them to modem 1109.
Step 101
Bksv is uploaded from modem 1109 to revocation list integrator 114 through line 110, network 113.
Step 102
Table of maker ID, apparatus ID, and Bksv uploaded from each STB during a specific period is prepared at revocation list integrator 114, which is an integrated revocation list.
Step 103
Integrated revocation list is transmitted to transmitting center 115 from revocation list integrator 114.
Step 104
Integrated revocation list is packetized and multiplexed into a transport stream at transmitting center 115.
Step 105
Transport stream with integrated revocation list multiplexed is transmitted to STB from transmitter 116.
Step 106

FIG. 10

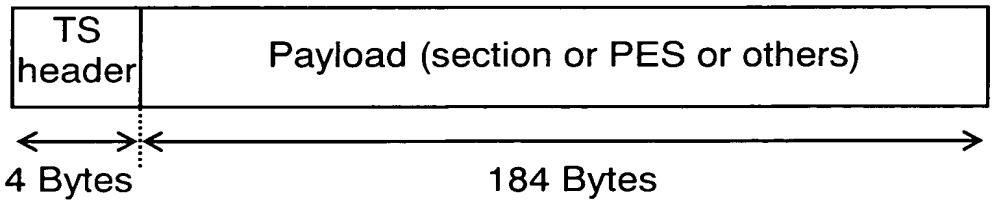
TS header
Payload (section or PES or others)
4 Bytes
184 Bytes

FIG. 11

Field	No. of bits
sync_byte	8
transport_stream_indicatior	1
payload_unit_start_indicator	1
transport_priority	1
PID	13
transport_scrambling_control	2
adaptation_field_control	2
continuity_counter	4
for (i=0;i <n;i++){	
data_byte	8
}	

FIG. 12

Field	No. of bits
table_id	8
section_syntax_indicatior	1
reserved	2
section_length	12
program_number	16
reserved	2
version_number	5
current_next_indicator	1
section_number	8
last_section_number	8
for (i=0; i <n;i++){	
marker_id	16
kiki_id	32
device_KSV	40
}	
CRC_32	32

FIG. 13

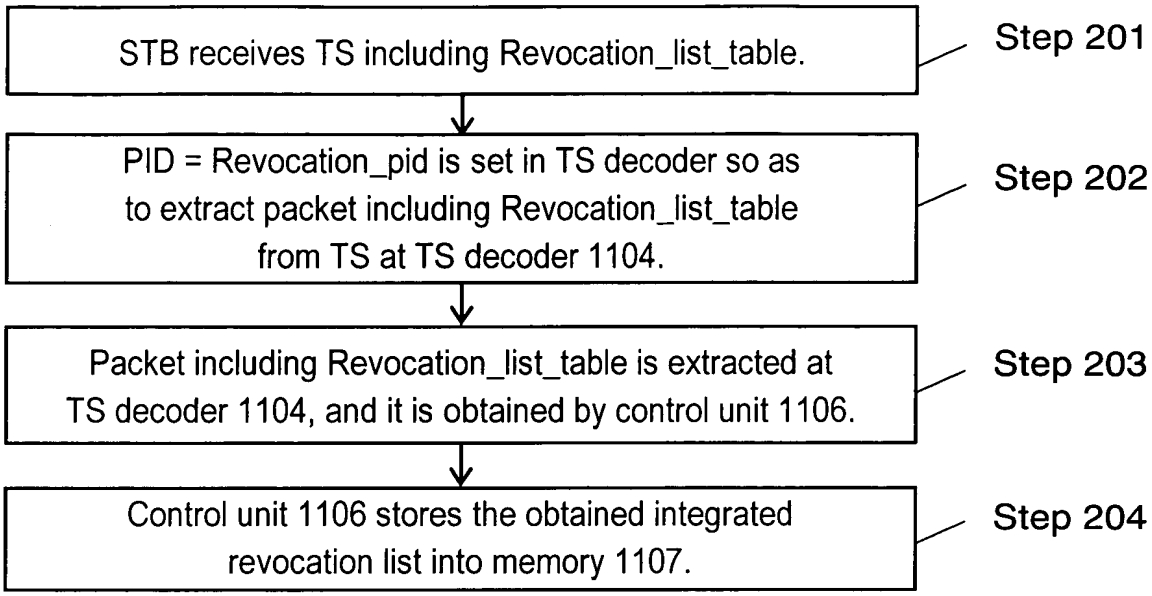

FIG. 14

Maker ID	Apparatus ID	Bksv
Maker_1	Kiki_1	Bksv_1
Maker_2	Kiki_2	Bksv_2
Maker_3	Kiki_3	Bksv_3
Maker_4	Kiki_4	Bksv_4
Maker_5	Kiki_5	Bksv_5
Not registered	Not registered	Not registered
Not registered	Not registered	Not registered

FIG. 15

Bksv
Bksv_1
Bksv_2
Not registered
Not registered

FIG. 16

Bksv
Bksv_1
Bksv_2
Bksv_3
Not registered

FIG. 17

Field	No. of bits
table_id	8
section_syntax_indicatior	1
reserved	2
section_length	12
program_number	16
reserved	2
version_number	5
current_next_indicator	1
section_number	8
last_section_number	8
for (i=0; i <n;i++){	
device_KSV	40
}	
CRC_32	32

FIG. 18

Bksv
Bksv_1
Bksv_2
Bksv_3
Bksv_4
Bksv_5
Not registered
Not registered

FIG. 19

Field	No. of bits
packet_start_code_prefix	24
strem_id	8
PES_packet_length	16
for (i=0;i <PES_packet_length/5;i++){	
maker_id	16
kiki_id	32
device_KSV	40
}	

FIG. 20

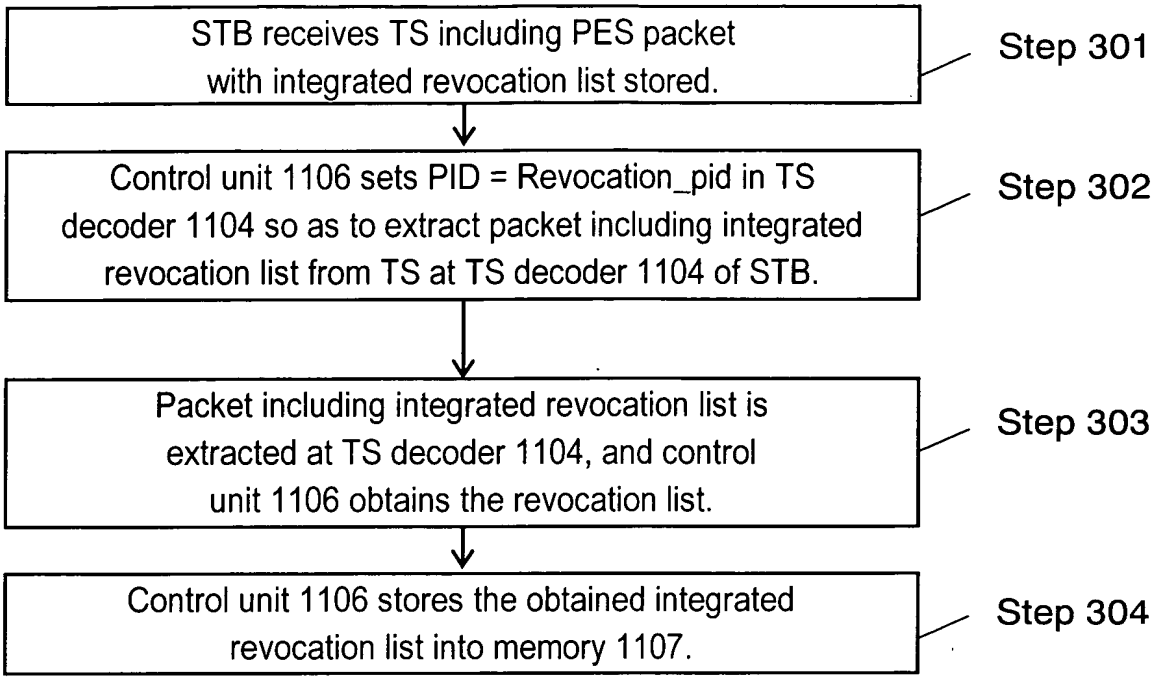

FIG. 21

Field	No. of bits
packet_start_code_prefix	24
strem_id	8
PES_packet_length	16
for (i=0;i <PES_packet_length/5;i++){	
device_KSV	40
}	

FIG. 22

Field	No. of bits
KSV_number	16
For (I=0;I <KSV_number,I++){	
maker_id	16
kiki_id	32
device_KSV	40
}	

FIG. 23

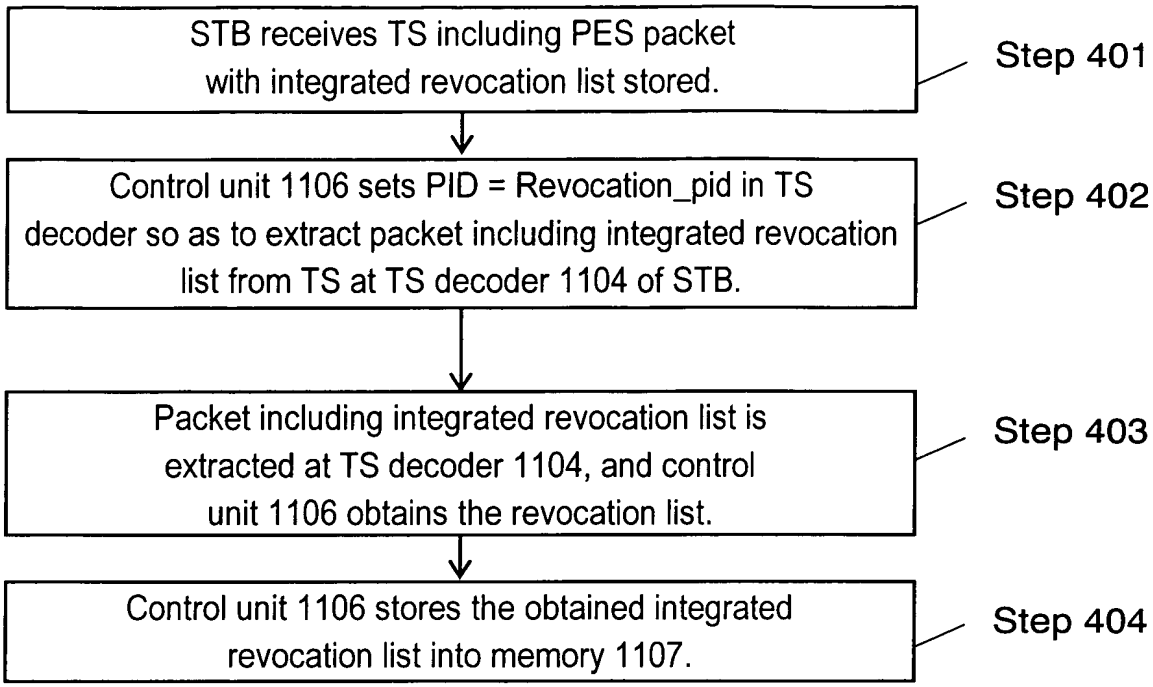

FIG. 24

Field	No. of bits
KSV_number	16
For (I=0;I <KSV_number,I++){	
device_KSV	40
}	

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FIG. 25

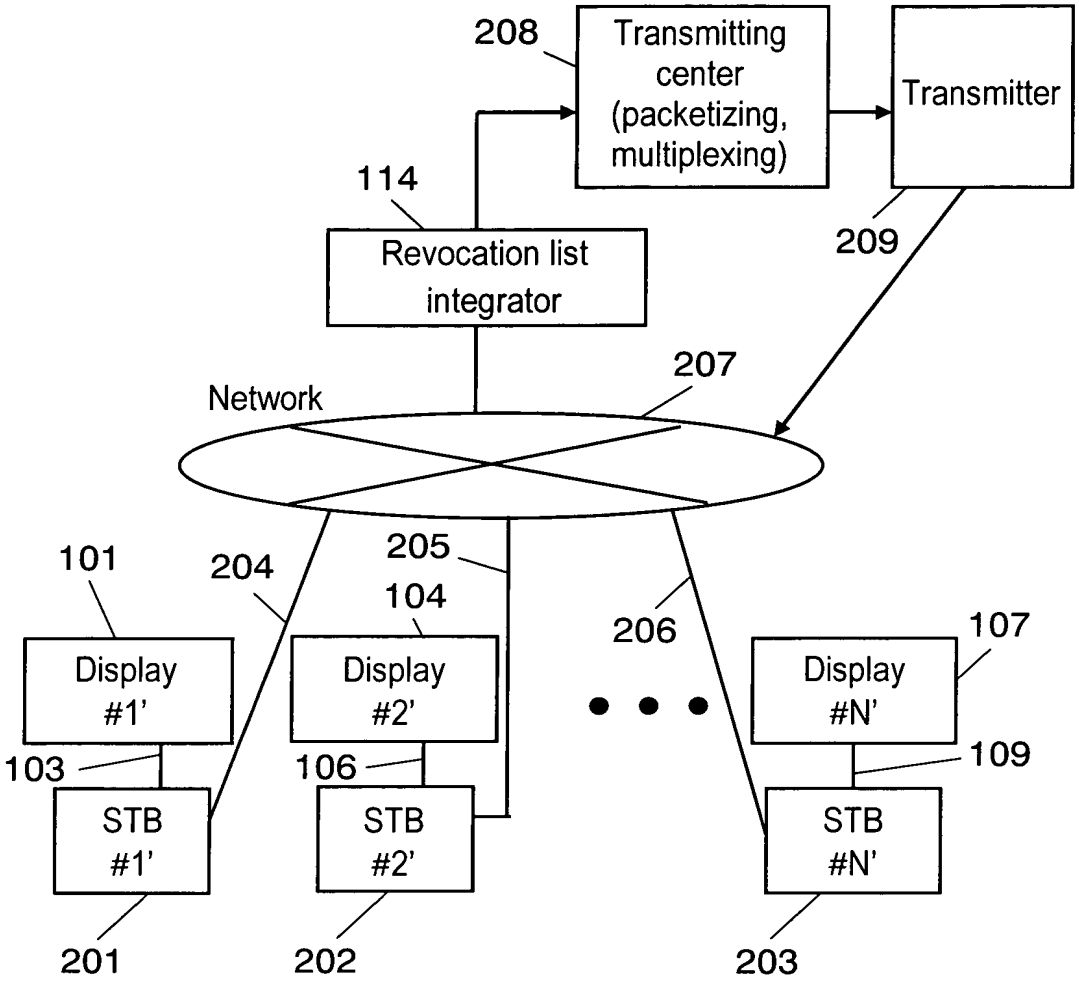

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FIG. 26

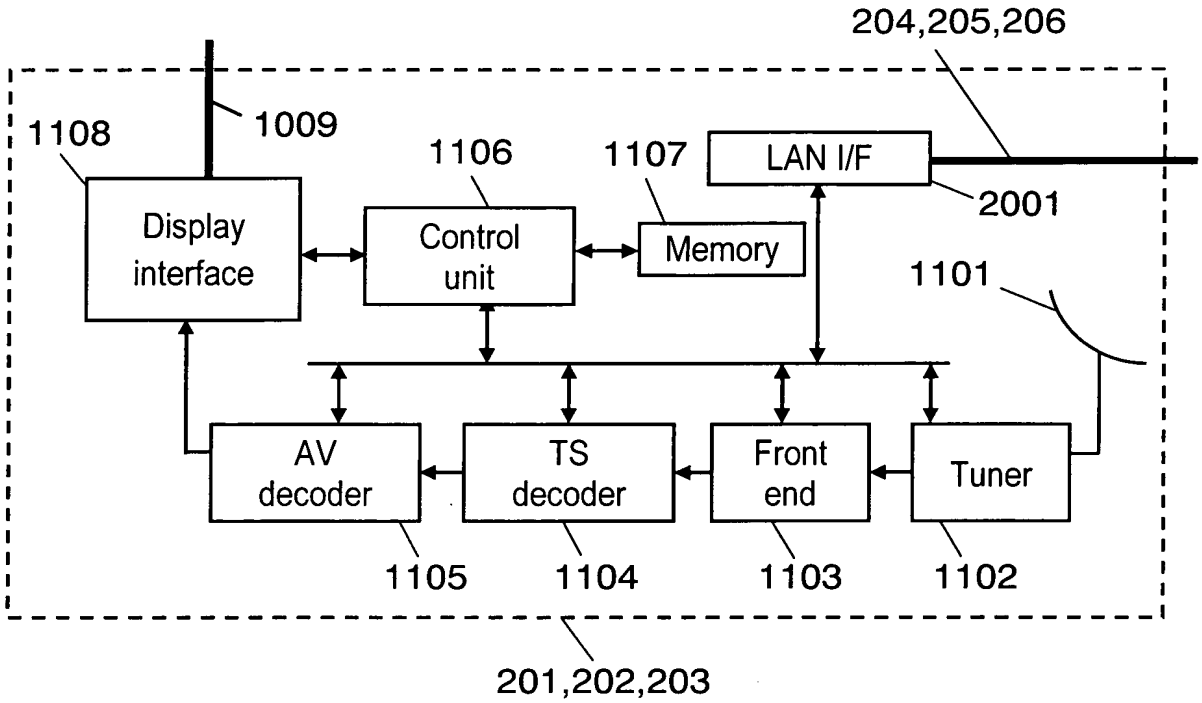

FIG. 27

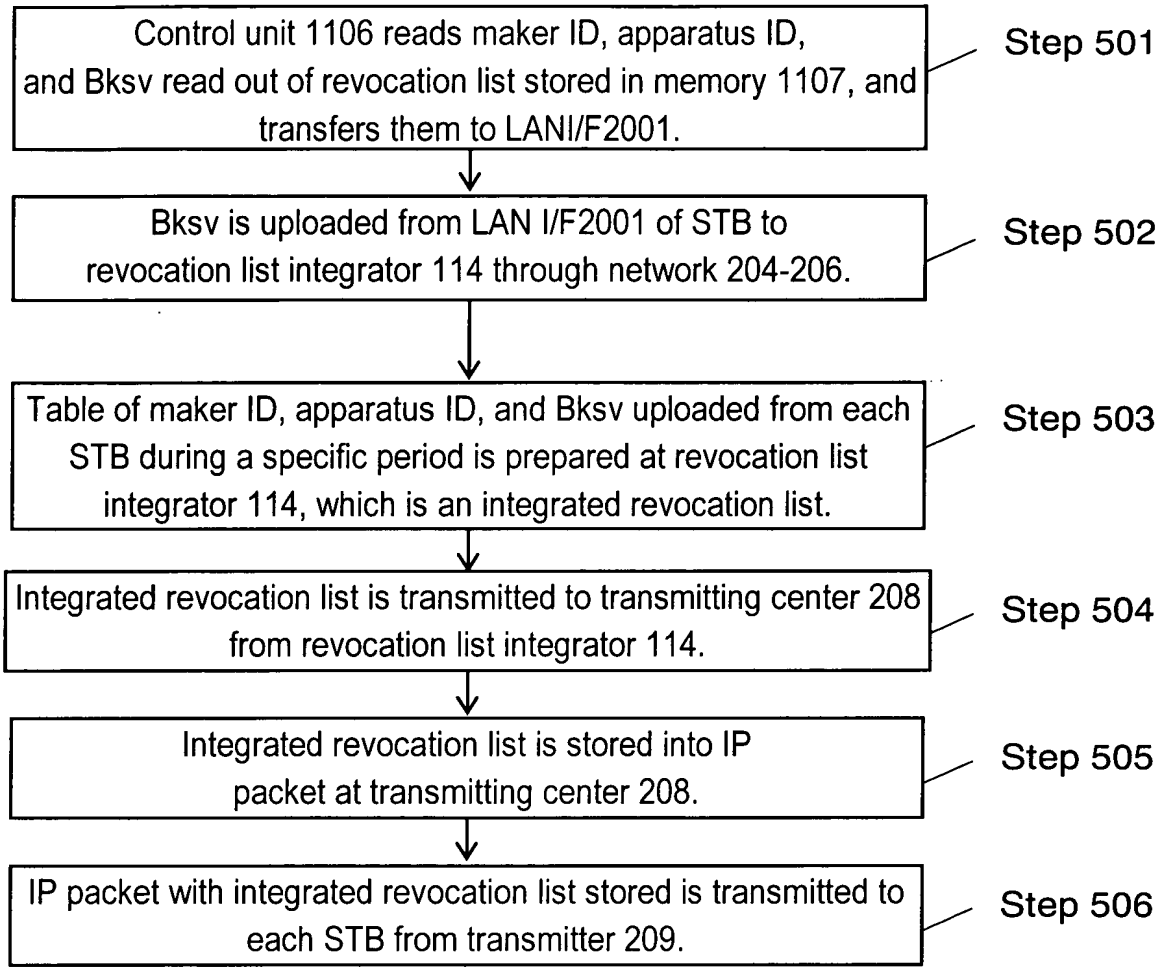

FIG. 28

Transmit IP address	Receive IP address	Protocol type	Transmit port No.	Receive port No.	Data	FCS

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FIG. 29

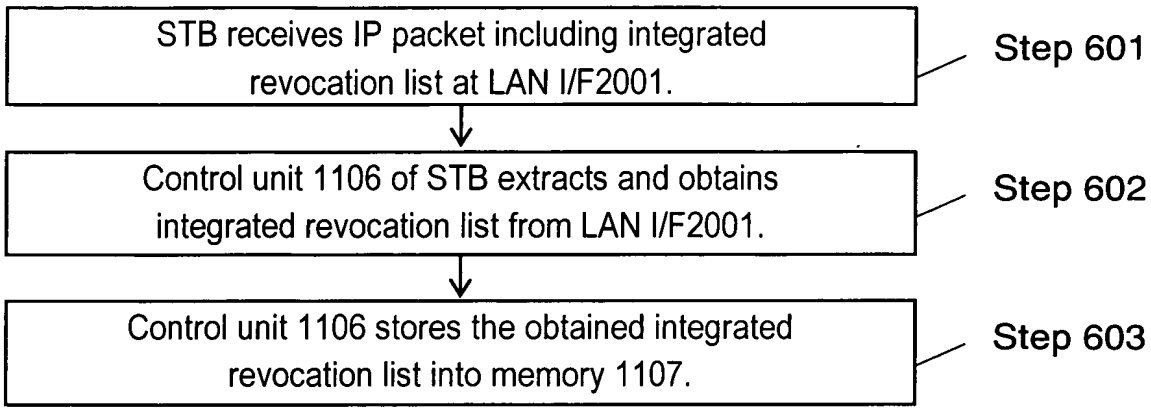

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FIG. 30

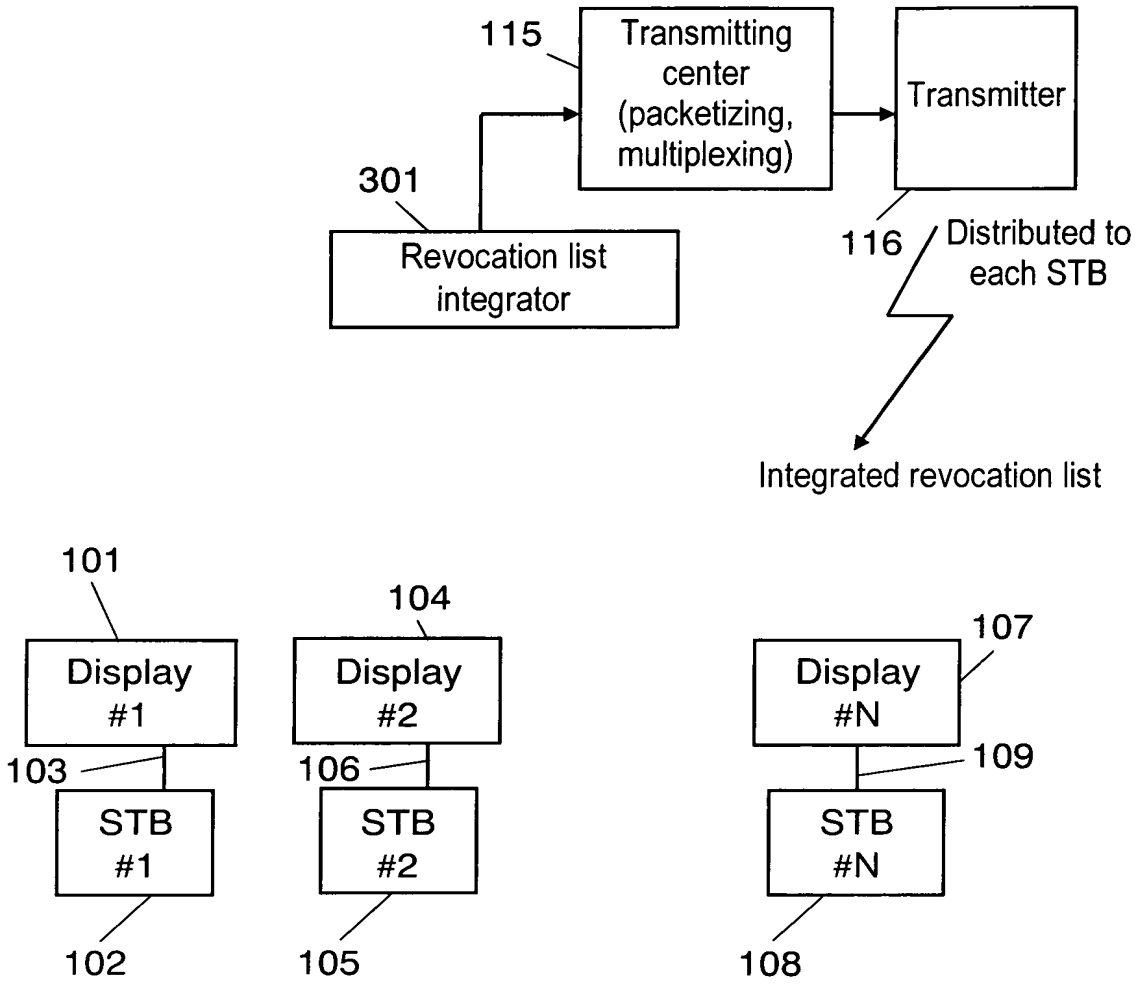

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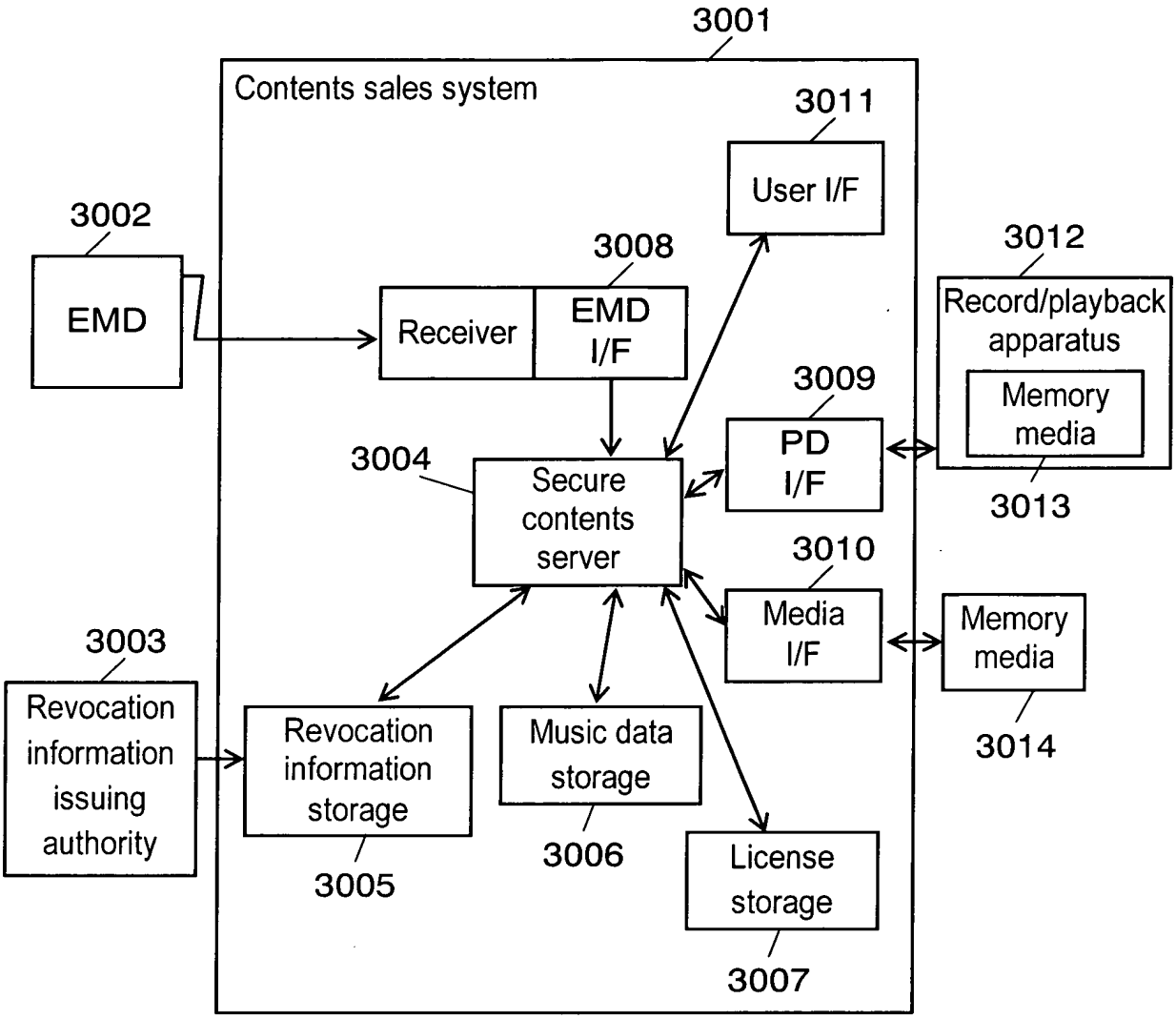
FIG. 31



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Reference numerals in the drawings

101 Fist display
102 First STB
103 First digital interface
104 Second display
105 Second STB
106 Second digital display
107 Nth display
108 Nth STB
109 Nth digital interface
110 First up-line
111 Second up-line
112 Nth up-line
113 Network
114 Revocation list integrator
115 Transmitting center
116 Transmitters
1001 Display unit
1002 Apparatus interface
1003 Control unit
1004 Memory
1101 Antenna
1102 Tuner
1103 Front end
1104 TS decoder
1105 AV decoder
1106 Control unit
1107 Memory
1108 Display interface
201 First STB
202 Second STB
203 Nth STB
204-207 Network
208 Transmitting center
209 Transmitter
2001 LAN I/F

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301 Revocation list integrator